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SEQUENCE LISTING

<110> NEW ENGLAND BIOLABS, INC.

SAMUELSON, JAMES

XU, SHUANG-YONG

<120> ALTERATION OF RESTRICTION ENDONUCLEASE SPECIFICITY BY GENETIC  
SELECTION

<130> NEB-198-PCT

<140> PCT/US03/000542

<141> 2003-01-09

<150> US 60/347,403

<151> 2002-01-10

<160> 2

<170> PatentIn version 3.1

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<212> DNA

<213> Bacillus stearothermophilus Y406

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caa gtt cac ttg cca cat att tgg gaa gaa att caa gaa att att gtt  
96

Gln Val His Leu Pro His Ile Trp Glu Glu Ile Gln Glu Ile Ile Val

20 25 30

tct att gac gca gaa gct tgt aga acg aag gaa tca aaa gaa aag aca  
144

Ser Ile Asp Ala Glu Ala Cys Arg Thr Lys Glu Ser Lys Glu Lys Thr

35 40 45

aaa caa gga caa ata ctt tat agt ccc gta gct tta aat gaa gca ttc  
192

Lys Gln Gly Gln Ile Leu Tyr Ser Pro Val Ala Leu Asn Glu Ala Phe

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aag gaa aaa tta gaa gca aaa ggt tgg aaa gaa agt cga aca aac tat  
240

Lys Glu Lys Leu Glu Ala Lys Gly Trp Lys Glu Ser Arg Thr Asn Tyr

65 70 75 80

tat gtg act gct gac cca aag ctg att cgt gaa aca tta tca ctt gaa  
288

Tyr Val Thr Ala Asp Pro Lys Leu Ile Arg Glu Thr Leu Ser Leu Glu

85 90 95

cca gag gaa caa aag aaa gtg att gaa gcc gca gga aaa gaa gca tta

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336

Pro Glu Glu Gln Lys Lys Val Ile Glu Ala Ala Gly Lys Glu Ala Leu

100

105

110

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384

Lys Ser Tyr Asn Gln Thr Asp Phe Val Lys Asp Arg Val Ala Ile Glu

115

120

125

gtt caa ttc gga aaa tat tct ttt gtc gct tat gac ctt ttc gtc aaa

432

Val Gln Phe Gly Lys Tyr Ser Phe Val Ala Tyr Asp Leu Phe Val Lys

130

135

140

cac atg gct ttc tat gtt agt gat aaa att gac gtt ggt gtc gaa ata

480

His Met Ala Phe Tyr Val Ser Asp Lys Ile Asp Val Gly Val Glu Ile

145

150

155

160

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528

Leu Pro Met Lys Glu Leu Ser Lys Glu Met Ser Ser Gly Ile Ser Tyr

165

170

175

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576

Tyr Glu Gly Glu Leu Tyr Asn Val Ile Arg Gln Gly Arg Gly Val Pro

180

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190

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612

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20 25 30

Ser Ile Asp Ala Glu Ala Cys Arg Thr Lys Glu Ser Lys Glu Lys Thr  
35 40 45

Lys Gln Gly Gln Ile Leu Tyr Ser Pro Val Ala Leu Asn Glu Ala Phe  
50 55 60

Lys Glu Lys Leu Glu Ala Lys Gly Trp Lys Glu Ser Arg Thr Asn Tyr  
65 70 75 80

Tyr Val Thr Ala Asp Pro Lys Leu Ile Arg Glu Thr Leu Ser Leu Glu  
85 90 95

Pro Glu Glu Gln Lys Lys Val Ile Glu Ala Ala Gly Lys Glu Ala Leu  
100 105 110

Lys Ser Tyr Asn Gln Thr Asp Phe Val Lys Asp Arg Val Ala Ile Glu  
115 120 125

Val Gln Phe Gly Lys Tyr Ser Phe Val Ala Tyr Asp Leu Phe Val Lys  
130 135 140

His Met Ala Phe Tyr Val Ser Asp Lys Ile Asp Val Gly Val Glu Ile  
145 150 155 160

Leu Pro Met Lys Glu Leu Ser Lys Glu Met Ser Ser Gly Ile Ser Tyr

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165

170

175

Tyr Glu Gly Glu Leu Tyr Asn Val Ile Arg Gln Gly Arg Gly Val Pro  
 180 185 190

Ala Val Pro Leu Val Leu Ile Gly Ile Ala Pro  
 195 200